Geometry CR

State Standard Number	State Standard Area / Description	Unit Name	Course Topic Description
0	Number and Number Relations		
1	Simplify and determine the value of radical expressions.	Special Triangles and Special Relationships in Triangles	Right Triangles and Pythagorean Theorem
2	Predict the effect of operations on real numbers (e.g., the quotient of a positive number, divided by a positive number less than 1, is greater than the original dividend).	Perimeter and Area	Perimeter and Area of Quadrilaterals
3	Define sine, cosine, and tangent in ratio form, and calculate them using technology.	Right Triangles and Trigonometry	Ratios in Right Triangles
4	Use ratios and proportional reasoning to solve a variety of real-life problems, including similar figures and scale drawings.	Similarity	Ratios and Proportions
0	Algebra		
5	Write the equation of a line of best fit for a set of 2-variable real-life data, presented in table or scatter plot form, with or without technology.	Parallel Lines and Coordinate Plane	Equations of Lines in Coordinate Plane
6	Write the equation of a line parallel or perpendicular to a given line through a specific point.	Parallel Lines and Coordinate Plane	Equations of Lines in Coordinate Plane
0	Measurement		
7	Find volume and surface area of pyramids, spheres, and cones.	Perimeter and Area	Surface Area Volume
8	Model and use trigonometric ratios to solve problems involving right triangles.	Right Triangles and Trigonometry	Ratios in Right Triangles

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Geometry CR

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9	Construct 2- and 3-dimensional figures when given the name, description, or attributes, with and without technology.	Quadrilaterals	Rhombus and Trapezoids
10	Form and test conjectures concerning geometric relationships, including lines, angles, and polygons (i.e., triangles, quadrilaterals, and n-gons), with and without technology.	Quadrilaterals	Polygons
11	Determine angle measurements using the properties of parallel, perpendicular, and intersecting lines in a plane.	Language of Geometry	Pairs of Angles
12	Apply the Pythagorean theorem in both abstract and real-life settings.	Special Triangles and Special Relationships in Triangles	Right Triangles and Pythagorean Theorem
13	Solve problems and determine measurements involving chords, radii, arcs, angles, secants, and tangents of a circle.	Circles	Special Segments in Circles Special Angles and Arcs in Circles
14	Develop and apply coordinate rules for translations and reflections of geometric figures.	Perimeter and Area	Transformations

Geometry CR

15	Draw or use other methods, including technology, to illustrate dilations of geometric figures.	Perimeter and Area	Transformations
16	Represent and solve problems involving distance on a number line or in the plane.	Language of Geometry	Measuring Segments
17	Compare and contrast inductive and deductive reasoning approaches to justify conjectures and solve problems.	Reasoning and Introduction to Proof	Inductive Reasoning Deductive Reasoning
18	Determine angle measures and side lengths of right and similar triangles, using trigonometric ratios and properties of similarity, including congruence.	Similarity Right Triangles and Trigonometry	Similar Triangles Special Ratios in Right Triangles
19	Develop formal and informal proofs (e.g., Pythagorean theorem, flow charts, paragraphs).	Reasoning and Introduction to Proof	Two-Column Proof with Segments and Angles
0	Data Analysis, Probability, and Discrete Math		
20	Show or justify the correlation (match) between a linear or non-linear data set and a graph.	Parallel Lines and Coordinate Plane	Equations of Lines in Coordinate Plane
21	Determine the probability of conditional and multiple events, including mutually and non-mutually exclusive events.	Reasoning and Introduction to Proof	Deductive Reasoning

Geometry CR

22	Interpret and summarize a set of experimental data presented in a table, bar graph, line graph, scatter plot, matrix, or circle graph.	Parallel Lines and Coordinate Plane	Equations of Lines in Coordinate Plane
23	Draw and justify conclusions based on the use of logic (e.g., conditional statements, converse, inverse, contrapositive).	Reasoning and Introduction to Proof	Inductive Reasoning
24	Use counting procedures and techniques to solve real-life problems.	Reasoning and Introduction to Proof	Deductive Reasoning
25	Use discrete math to model real life situations (e.g., fair games, elections).	Reasoning and Introduction to Proof	Deductive Reasoning
0	Patterns, Relations, and Functions		
26	Generalize and represent patterns symbolically, with and without technology.	Reasoning and Introduction to Proof	Inductive Reasoning
27	Translate among tabular, graphical, and symbolic representations of patterns in real-life situations, with and without technology.	Reasoning and Introduction to Proof	Inductive Reasoning